Status of Claims

Claims 1, 4-5, 7-19, 21, 23-25, 31, and 33-34 are pending, claims 2-3, 6, 20, 22, 26-30, and 32 are canceled, and the limitation of now canceled claim 3 has been incorporated into currently amended claim 1. Claim 33 has been similarly amended.

Rejections under 35 USC §103

Claims 1, 3-5, 7-8, 10, 13-14, 17-19, 21, 23-25, and 31-34 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Lambrecht et al. (U.S. 5,951,664) (hereinafter, "Lambrecht") in view of Simar, Jr. et al. (U.S. 6,182,203 B1) (hereinafter, "Simar") and further in view of Hansen et al. (U.S. 5,640,490) (hereinafter, "Hansen"). Claims 9, 12, and 15-16 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Lambrecht in view of Simar in view of Hansen and further in view of well known prior art (MPEP 2144.03). Claim 11 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Lambrecht in view of Simar in view of Hansen, and further in view of Oh et al. (U.S. 6,275,806 (hereinafter, "Oh").

Remarks

The examiner states that Lambrecht discloses all the limitations of claim 1 expect a command and control speech engine residing in the memory of the DSP, a DSP that serves as the preprocessor of all speech input prior to execution of instructions by the CPU to process speech input, and a speech engine which includes a vocabulary of speech terms enabled to be loaded into the memory which are associated with specific instructions or contextual environments. The examiner attempts to remedy the

deficiencies of Lambrecht by using Simar and arguing that it would be obvious to combine the two references for the purpose of handling real-time applications such as speech recognition. The examiner also states that Lambrecht in view of Simar does not disclose that the DSP is enabled to operate in either command and control mode or continuous speech mode and attempts to remedy this by applying Hansen and arguing that it would have been obvious to combine Hansen for the purpose of offering more computer real-time applications such as speech recognition and combining speech recognition into other applications such as word processor documents.

The applicant disagrees with the examiner's interpretation of the references. First, Lambrecht teaches that when an application is executed on the CPU, multimedia data is generated and is transferred or written by the CPU to main memory (column 24, lines 12-16). Once real-time or multimedia data and commands have been placed in the multimedia memory by the CPU, one or more of the multimedia devices reads the commands and data from the multimedia memory and performs the necessary graphics and audio processing functions (column 25, lines 3-9).

Simar teaches, in one embodiment, a computer system including a host computer 631 which supplies data input to a first device 11 operating as a DSP microprocessor 653. Control, address and data information are supplied by two-way communication paths between DSP 653 and a second device 11 operating as a GSP (graphics signal processor) 655 (see fig. 96 and associated text, especially column 92, lines 46-52). In another embodiment, Simar teaches an automatic speech recognition system including a microphone 701, a sample-and-hold circuit 703, and an A/D circuit 705. The system also includes an interrupt-driven fast Fourier transform processor 707 utilizing device 11, a

processor 707, and a speech recognition DSP 709 incorporating a further device 11 (see figure 97 and associated text, especially column 92, line 64 – column 93, line 10).

The combination of Lambrecht and Simar as argued by the examiner is completely different from the claimed invention. First, the DSP does not work as a slave to the CPU as taught by Lambrecht, but as an interface between the audio input and CPU where the DSP is enabled to execute processing functions independent from the CPU.

Moreover, Simar does not disclose or motivate the claimed "command and control speech engine residing in the memory of the DSP" as asserted by the examiner. The portion of Simar that the examiner relies upon to teach this limitation relates to the lexical access processor 739 which performs "symbolic manipulations on phonetic element representations derived from the output of speech recognition DSP 709 and formulates syllables, words and sentences according to any suitable lexical access algorithm" (column 93, lines 42-46). This lexical access process does not perform the same function as the claimed command and control speech engine and cannot be argued to be an equivalent. The command and control speech engine which resides in memory connected to the DSP is used to convert the incoming command and control speech to digital signals that the CPU can execute.

Additionally, by combining the teachings of Simar with that of Lambrecht as suggested by the examiner, this proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified. For instance, in the portion of Simar that the examiner relies upon for his rejection, speech is processed using discrete devices such as a device based upon a Fourier transform processor 707 and another device including speech recognition DSP 709 (column 93,

lines 1-10). Output from the DSP 709 is supplied to system bus 711 and then to devices such as speech synthesizer 717 and speaker 719. There is no way to combine Simar's invention with that of Lambrecht without changing the operation of Lambrecht because Lambrecht requires the CPU to do the initial speech processing. Although, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference, but what the combined teachings would have suggested to those of ordinary skill in the art. In this case, one of ordinary skill in the art would not have been motivated to combine the speech processing of Simar utilizing separate speech processing components to output synthesized speech and Lambrecht utilizing a CPU/DSP combination that has the CPU performing the primary processing functions to arrive at the presently claimed invention. Therefore, the teaching of the references are not sufficient to render the claims *prima facie* obvious (MPEP 2143.01).

Further, the addition of Hansen to the Lambrecht and Simar combination does not correct the problems described above by combining the teachings of Simar with Lambrecht.

Claim 33 has been similarly amended and the arguments above apply to the rejection of claim 33 as well.

For at least these reasons, the Examiner is respectfully requested to withdraw these grounds of rejection. The Applicant believes the present claims are in condition for allowance and reconsideration, and an early Notice of Allowability is sought.

Respectfully submitted,

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